

SEVENTH EDITION

Integrating Educational Technology into Teaching

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By Michael Berson and M. D. Roblyer

Teaching and Learning with Technology in Social Studies

Learning Outcomes

After reading this chapter and completing the learning activities, you should be able to:

1. Identify implications for technology integration of each current issue that social studies teachers face. (ISTE Standards•T 4, 5)
2. Select technology integration strategies that can meet various needs for instruction in social studies. (ISTE Standards•T 2, 5)
3. Design a strategy for how to build teacher knowledge and skills in technology integration for social studies. (ISTE Standards•T 5)

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TECHNOLOGY INTEGRATION IN ACTION

I WITNESS ACCOUNTS – SURVIVOR VIDEOS

GRADE LEVEL: 8–12 • CONTENT AREA/TOPIC: American history, civics • LENGTH OF TIME: Two weeks

PHASE 1 ANALYSIS OF LEARNING AND TEACHING NEEDS



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Step 1: Determine relative advantage.

Like many history teachers, Mr. Kinsella struggled to make the study of American history meaningful and interesting to his students. Through a workshop at the regional social studies conference, he became acquainted with the IWitness website, where he saw a collection of video interviews in which survivors of various catastrophic events (e.g., wars, Holocaust, deportations) tell their stories. He found the videos so compelling, he immediately began thinking of how students could use video to connect with some of our country's recent history. He decided on the strategy of students creating their own video "survival stories" of people in the community who had survived catastrophic events such as wars, civil rights conflicts, and terrorist attacks such as the ones in New York and Colorado.

Step 2: Assess required skills and resources.

Mr. Kinsella decided to introduce the IWitness site when his history class covered the years from 1940 to the present. He would assign his students to view several IWitness videos as an outside-class assignment (a kind of flipped-classroom activity) to develop an understanding of the use of testimony from Holocaust survivors. For student-created videos, he realized that though he had used digital cameras to capture home videos, he knew little about video editing and features like screen effects and captioning. He asked Ms. Lorde, the technology education teacher, to recommend video software that was both free and easy to learn. Ms. Lorde recommended Windows Moviemaker; she also offered to help Mr. Kinsella learn the software and assist students with their video projects. With the help of the school district office, he managed to obtain three digital cameras, and students were able to borrow others from their parents. He also knew he could use the class's Edmodo site to post assignments and directions and to communicate with students about the project. The final resource he needed was a list of people to interview. Through his classroom blog, Mr. Kinsella identified veterans from the Vietnam War, the Korean Conflict, Desert Storm, and Afghanistan who were willing to tell their stories. Students' grandparents who grew up in the segregated South offered to tell their stories of struggle, and a Jewish great-grandparent offered to share a story of survival in France during World War II. Finally, one student had an uncle who was a survivor of the 2001 terrorist attack in New York.

PHASE 2 PLANNING FOR INTEGRATION

Step 3: Decide on objectives and assessments.

Though students were very excited about the idea of doing video interviews, Mr. Kinsella had to think carefully about outcomes he wanted to achieve with this unit—outcomes beyond generating excitement about doing their own video. He decided he wanted to achieve the following outcomes, objectives, and assessment strategies:

Outcome: History achievement.

Objective: At least 85% of students will make an 80% or better on the history unit test for the period 1940–present.

Assessment: Benchmark state-created test.

Outcome: History attitudes.

Objective: Students will demonstrate improved attitudes toward the relevance and appeal of studying history.

Assessment: Teacher-designed Likert scale.

Outcome: Video quality.

Objective: Students will score at least 80% on a video quality rubric.

Assessment: Video rubric modified from one located online.

Step 4: Design integration strategies.

Mr. Kinsella planned the following sequence of activities to carry out the unit:

Introduce unit and iWitness website: Introduce the project at the beginning of the unit and use an interactive whiteboard to demonstrate the website and show one of the survivor videos.

Students watch videos: Tell students to access the class's Edmodo site to get a Viewing Assignment sheet and a Video Project assignment outline. They will select and watch at least three videos, complete the assignment sheet to show those which they viewed, and post the completed sheet to the Edmodo site.

Review assignment in class: To make sure students understand how to proceed, a class discussion will allow students to ask questions.

Students decide on a video subject: Students may work individually or in pairs or threes to select a subject to interview, create video questions, and complete their interviews.

Students work on video editing: Ms. Lorde demonstrates how to use the movie-making software, and each student or group works on editing and placing effects in the video interview.

Students research historical period: With Mr. Kinsella's guidance, the students use classroom and online resources to research the time period in which their survival story is set. The assignment sheet lists the items they are to find out and be prepared to report on.

Student presentations: The students place their videos on the Edmodo site, view each other's videos, and give their reports in class on the historical period. After all reports are given, Mr. Kinsella facilitates a class discussion in which students comment on each other's videos and the history surrounding them.

Step 5: Prepare instructional environment.

Mr. Kinsella created the needed assignment and directions documents and set up the Edmodo site with the required areas to support the project.

PHASE 3 POST-INSTRUCTION ANALYSIS AND REVISIONS

Step 6: Analyze results.

At the end of the unit, Mr. Kinsella gave the unit test and reviewed the results from the attitude surveys and video rubrics. He had met his target criterion for success in improved student attitudes about studying history, and the video rubrics all reflected passing results. Some students still could not pass the end-of-unit test on the history of the period, but on parts pertaining to the time periods on which students reported, results were generally much better. An unexpected outcome was the attention the project drew from the community. The local TV channel did a special on the project, featuring clips from some of the videos. Mr. Kinsella received many emails and blog-posted messages from parents and community leaders applauding his work. A local veterans group offered financial assistance to expand the scope of the project to any local veteran who wanted to share a survivor story.

Step 7: Make revisions.

To improve results on the required unit tests, Mr. Kinsella made plans to do "mini-reviews" of information from each decade before students took the test. Also, some students had complained that they needed more time to work on videos and wanted more assistance creating various video effects, so Mr. Kinsella revised the project schedule to allow for more in-class time and after-school assistance to work on videos.

Source: Based on ideas from the iWitness website's lesson plan iWitness Video Challenge at <http://iwitness.usc.edu/SFI/Activity/>.



CHAPTER 12 BIG IDEAS OVERVIEW

Before you begin reading the rest of this chapter, listen to the [Chapter 12 Big Ideas Overview](#). It will give you a two-minute audio overview of main concepts to look for and help prepare you to work through information and exercises to achieve this chapter's outcomes.

ISSUES AND CHALLENGES IN SOCIAL STUDIES INSTRUCTION

Since the Industrial Revolution, science and technology have shaped the world in fundamental ways, but in the 1990s the Internet accelerated this influence. Better, faster worldwide communications have made the world at once smaller and more complex. Life was simpler—and less informed—when people were not able to know so much about themselves and others so quickly. Social studies instruction is designed to help us discover and better understand our world and its people, and technology-based strategies have become integral to this instruction (Diem & Berson, 2010).

Various issues shape the technologies that social studies teachers choose and the strategies they create with them. This section reviews these issues, which include challenges presented by social studies standards, challenges inherent in social studies instruction, debates about how best to teach social studies content, and the impact of the “information explosion” on social studies content and methods.

Meeting Standards Across Social Studies Areas

The National Social Studies Standards, released in 2004 and revised in 2010, address overall curriculum design and comprehensive student performance expectations. However, standards also exist for each of the social studies disciplines—such as civics, economics, geography, government, and history—which provide more specific content detail for each discipline. The intent of the NCSS standards is to encourage curriculum designers to use the NCSS social studies standards for creating the overall framework and then fill in the detail using the discipline standards. The National Council for the Social Studies (NCSS) has adopted the following formal definition of **social studies**:

Social studies is the integrated study of the social sciences and humanities to promote civic competence. Within the school program, social studies provides coordinated, systemic study drawing upon such disciplines as anthropology, archaeology, economics, geography, history, law, philosophy, political science, psychology, religion, and sociology, as well as appropriate content from the humanities, mathematics, and the natural sciences. The primary purpose of social studies is to help young people develop the ability to make informed and reasoned decisions for the public good as citizens of a culturally diverse, democratic society in an interdependent world (National Council for the Social Studies, 2010, p. 3; reprinted by permission).

Ten themes form the framework of the social studies standards; those, along with a brief description of each, are presented next (NCSS, 2010). At the elementary and middle school levels, school systems usually address the social studies curriculum by teaching a variety of topics from these strands. In high school, social studies tends to become divided into more specific areas, such as history and civics. Thus, when referring to a course, the term social studies is more commonly used to describe K–8 classes than high school classes. The themes are summarized below.

Theme 1: Culture. This focuses on the characteristics of cultures and how belief systems from religion or politics influence culture. Instruction on this theme is covered in geography, history, sociology, and anthropology, and multicultural topics of various courses.

Using Video to Teach Psychology Concepts

In this video, a principal tells how one of her teachers uses video to address a lesson under social studies Theme 4: Individual development and identity. What television programs or online videos might be helpful in modeling concepts you will teach?



▲ Technology plays an important role in addressing social studies Theme 1, which addresses the characteristics of cultures and how belief systems from religion or politics influence culture. Dboystudio/Shutterstock

Theme 2: Time, continuity, and change. Instruction on this theme is usually in history courses and helps students answer questions such as: “Who am I? What happened in the past? How am I connected to those in the past? How has the world changed, and how might it change in the future? Why does our personal sense of relatedness to the past change?” (Social Studies Standards, 2010).

Theme 3: People, places, and environments. This theme is covered in geography courses and studies of local areas to help students create “geographic perspectives of the world beyond their personal locations” (Social Studies Standards, 2010). They gain knowledge about how things are located, how landforms change, and how these changes affect people.

Theme 4: Individual development and identity. This theme usually appears in psychology and anthropology courses to help students learn about how their identity is shaped by their membership in a culture, groups, or institutions. They also come to understand how people learn and behave as they do and how they develop from youth to adulthood.

Theme 5: Individuals, groups, and institutions. This theme is covered in sociology, anthropology, psychology, political science, and history courses. It focuses on the roles that schools, houses of worship, families, government agencies, and the courts play in our lives and how these entities control or influence them.

Theme 6: Power, authority, and governance. Courses in government, politics, political science, history, and law cover this theme and help students understand how power, authority, and governance function in the United States and other parts of the world. Such understanding is seen as integral to students developing civic competence.

Theme 7: Production, distribution, and consumption. This theme is usually seen in economics courses. Instruction on this theme addresses topics in the production and distribution of goods and services and how land, labor, capital, and management are involved in them.

Theme 8: Science, technology, and society. This is the one social studies theme that directly addresses technology and is covered in many different social studies courses, including history, geography, economics, civics, and government. It focuses on the nature of change, how technology helps bring it about, and how we can preserve our fundamental values and beliefs in the midst of this change.

Theme 9: Global connections. Though usually covered in courses dealing with geography, culture, and economics, this theme also shares information from natural and physical sciences and the humanities. It seeks to show students that though national and global goals sometimes conflict, these goals also connect and depend on each other. Topics include “health care, the environment, human rights, economic competition and interdependence, age-old ethnic hostilities, and political and military alliances” (Social Studies Standards, 2010).

Theme 10: Civic ideals and practices. This theme appears in history, political science, and cultural anthropology courses, and in fields such as global studies, law education, and the humanities. It addresses ideals and practices that enable students to be informed citizens and participants in their community, country, and the world at large.

College, Career, and Civic Life (C3) Framework. In addition to the 2010 social studies standards, the National Council for the Social Studies (NCSS, 2013) published the College, Career, and Civic Life (C3) Framework for Social Studies. This framework helps states upgrade their state social studies standards and assist school districts, schools, teachers, and

curriculum writers in strengthening their local social studies programs. C3's four dimensions are designed to be used across all 10 social studies themes and include:

1. Developing Questions and Planning Inquiries
2. Applying Disciplinary Concepts and Tools
3. Evaluating Sources and Using Evidence
4. Communicating Conclusions and Taking Informed Action

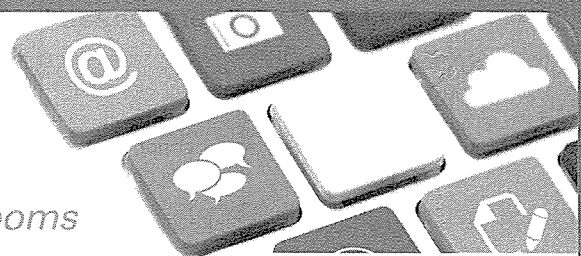
Despite guidance provided by the standards and framework, the social studies teacher is challenged to have sufficient background to teach such diverse topics. The typical social studies teacher is often called on to be a “jack of all trades” and, hopefully, a master of more than one of the social studies content areas. Unfortunately, many preservice teachers with social studies majors go into specific areas such as history where they feel they are most likely to get a job, leaving courses in content areas such as economics and geography last on their list. Depending on the teaching position teachers take, they must look to available resources such as those found online to help them meet the needs of content areas in which they may lack background (Berson & Berson, 2013).

Challenges in Teaching Social Studies

Despite their obvious value and relevance to future citizens, social studies themes and topics are not usually among those included in statewide assessments. Many states limit their graduation tests to language arts (i.e., reading and writing) and mathematics. Since schools tend to focus instruction and resources primarily on tested topics, social studies areas are often placed on the back burner (Passe & Fitchett, 2013). Consequently, technology materials tend to be directed toward other content areas. This means that teachers have to look for inexpensive or free sources such as those shown in the Open Sources Options for Social Studies. There are also many options available to help teachers meet diverse needs when teaching social studies, as shown in the Adapting for Special Needs feature.

The sheer amount of material to review in many social studies topic areas is also a challenge. A good example is a world history course, which often covers the period from the dawn of civilization to the present day. The amount of content, coupled with the de-emphasis on social studies topics, creates an ongoing challenge to teachers and schools to address social studies in a meaningful way.

OPEN SOURCE OPTIONS *for Software in Social Studies Classrooms*



TYPES

Polling students

Brainstorming

Poster creation

Timelines

Dynamic presentations

Graphing

FREE SOURCES

Poll Everywhere: polleverywhere.com/#

Bubbl: bubbl.us/

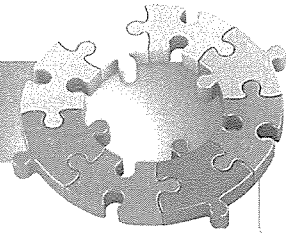
Glogster: glogster.com/

Dipity: dipity.com/
Timetoast: timetoast.com/

Prezi: prezi.com/

National Center for Education Statistics: nces.ed.gov/nceskids/createagraph/

Adapting for Special Needs



Social Studies

Social studies topics can be challenging for some students with disabilities because of the significant amount of grade level reading required. As a result, educators should consider how to provide multiple means of accessing information such as photos, movies, audio, and simplified text. A strategy that incorporates a variety of media in a meaningful, enjoyable activity is to use technologies that allow students to follow news stories and create their own, personalized newspaper. The value to students is that they take responsibility for deciding which stories they want to follow, which engages them more in reading, and also create a professional-looking product they can be proud of. The following are several resources that can help carry out this kind of activity:

- Tween Times Tribune (at the Tween Tribune website)—Students can read the same current event news article at multiple grade levels.
- Newsela (at the Newsela website)—Current events news articles are available at multiple Lexile levels.

- The Big Picture (at Boston.com's Big Picture website)—Major news stories in photographs.
- Newsmap (at the Newsmap website)—Summarizes major stories in short paragraphs and provides links to full stories.
- Social Studies for Kids (at the Social Studies for Kids website)—Current events written at low readability levels.
- News-2-You (at the News-2-you website)—This subscription-based service prepares a weekly, downloadable current-events reader that teachers may copy and distribute to students. For students with mild or moderate cognitive impairments, this specially designed newspaper keeps them in touch with the news using high-interest, low-vocabulary stories with each word accompanied by a rebus image.

—Contributed by Dave Edyburn

The “History Wars” and Other Debates on the Content and Focus of Social Studies

Social studies has attracted more debate and criticism than perhaps any other content area, and much of this discussion centers around the appropriate role of history in the curriculum. In recent years, leaders in the field of social studies have made the case that students should be aware of the broad array of influences that have shaped our country's history. Critics of this approach feel that the content of history courses has become diluted—that courses focus too much on topics they consider to be outside the mainstream, traditional historical themes and important events that shaped the United States (Lanius, 2013). These critics feel that teachers are ill-equipped to teach history effectively (Halvorsen, 2012). As a result, the disciplines within the social studies each have their own camps that are fighting for more coverage within the schools and financial support to prepare teachers effectively.

Perils of the Information Explosion

The ready availability of information on the Internet has created several concerns for social studies educators. Some believe that Internet information has the potential to alter the traditional relationship between student and teacher, since teachers are no longer the primary source of facts or opinions. Teachers tell of students bringing printed Web pages to school to contradict what the textbook and/or teacher says. In the past, most information that students received was sifted through a reliable filter; today, those filters often are nonexistent. Students can find sites that profess Nazi and Ku Klux Klan ideology, treat rumor as fact, and promote conspiracy theories that range from UFO landings in Roswell, New Mexico, to the CIA selling drugs in American cities.

Many students have been drawn to online sites without questioning their accuracy. Many educators believe we should use such controversial websites as demonstration tools to teach our students how to become critical consumers of information, and others believe students need digital literacy skills now more than ever.



TECHNOLOGY LEARNING CHECK

Complete **TLC 12.1** to review what you have learned from this section about issues that affect how technology may be integrated into social studies.

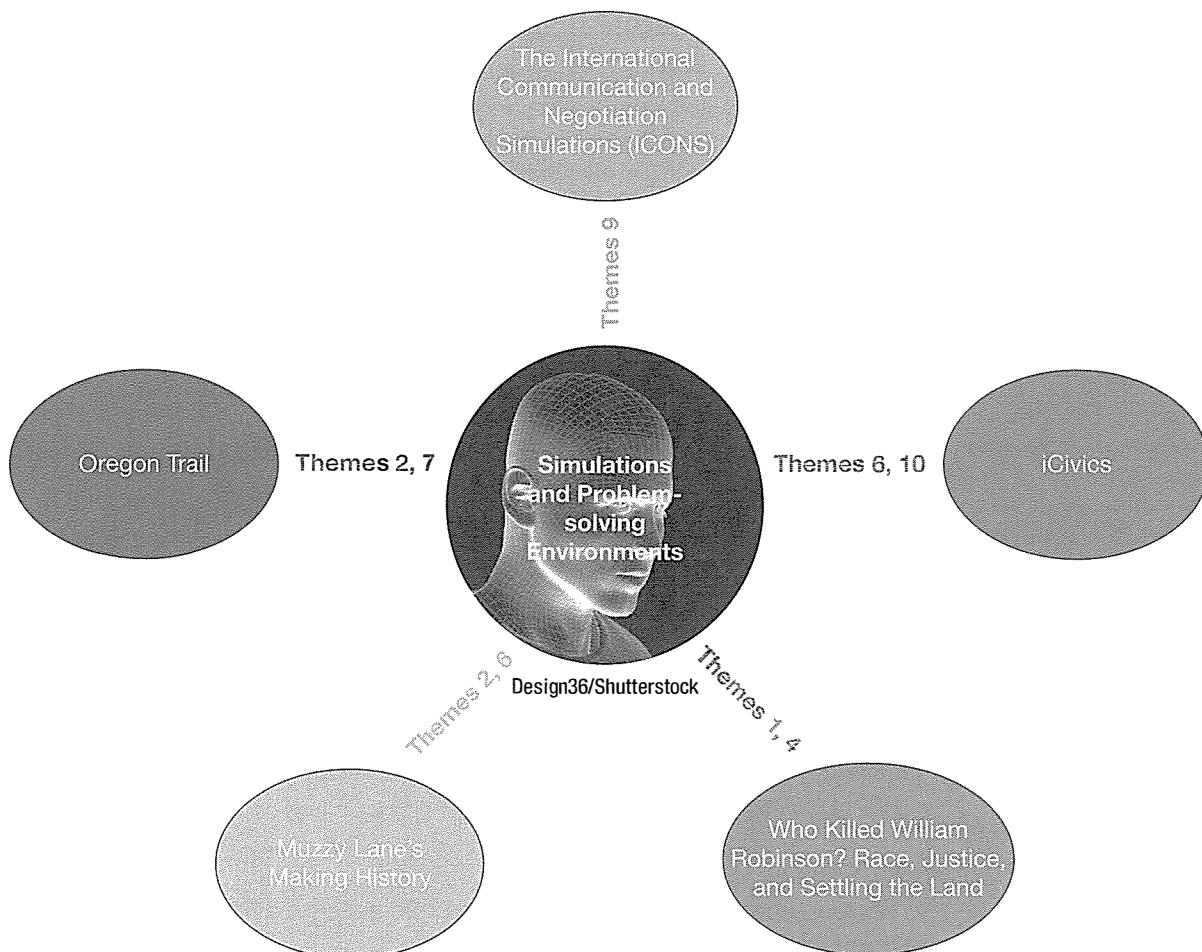
TECHNOLOGY INTEGRATION STRATEGIES FOR SOCIAL STUDIES

Technology tools make possible a variety of strategies to enhance learning for the diverse topics and concepts that comprise social studies content. The strategies described here support both traditional, directed approaches to teaching social studies topics as well as constructivist ones. The following integration strategies suggest activities to address each of the 10 themes in the NCSS National Social Studies Standards, as well as the C3 Framework dimensions. Also see the *Top Ten Must-Have Apps for Social Studies*. Berson, Berson, and Manfra (2012) call for bundling multiple apps together to support innovative teaching and learning.

Using Simulations and Problem-Solving Environments

Many social studies topics present issues, concepts, or procedures that may be complex and confusing to students. **Simulations**, or software that allows users to work with a computerized model of a real or imagined system, can help make these concepts more clear and meaningful. Some simulations allow students to take an active part in historical situations that would not otherwise be possible due to historical or physical distance. Other problem-solving environments situate learning in authentic situations using real-world data and situated movies to motivate students. These products are designed to immerse students in problem-solving scenarios where they must make decisions and apply information they have learned. For example, Muzzy Lane's Making History places students in the role of decision makers by assuming the role of a country's leader during World War II. Some of the best simulation and problem-solving resources for social studies topics are shown in Figure 12.1

FIGURE 12.1 Simulations and Problem-Solving Resources for Social Studies



Also see these website simulations: JA Finance Park, A Sailor's Life for Me! (at the USS Constitution Museum website), and Quandary.

Accessing Primary Sources

The power of integrating primary sources into social studies has long been documented in research. Through primary sources teachers may use familiar objects, images, and sounds to represent distinct time periods and cultural traditions. Primary sources foster the visual literacy and historical inquiry of students by making academic content meaningful and building on prior experiences. Moreover, they capitalize on the active and social nature of children's learning when teachers engage students in sifting, questioning, comparing, evaluating, and constructing their own interpretations of the primary sources (Berson & Berson, 2013, 2014). The following resources represent some of the very best primary source digital databases:

- Library of Congress (<http://www.loc.gov>)—Print, pictorial, audio-visual, and other digital collections that record the documented history of the American people
- National Archives and Records Administration (<http://www.archives.gov>)—Important documents from the U.S. federal government
- Our Documents (<http://www.ourdocuments.gov>)—Compilation of 100 milestone documents from the National Archives that chronicle U.S. history from 1776 to 1965
- The Oyez Project—Multimedia archive of cases from the U.S. Supreme Court
- Project Gutenberg—Freely accessible historical books in digital form

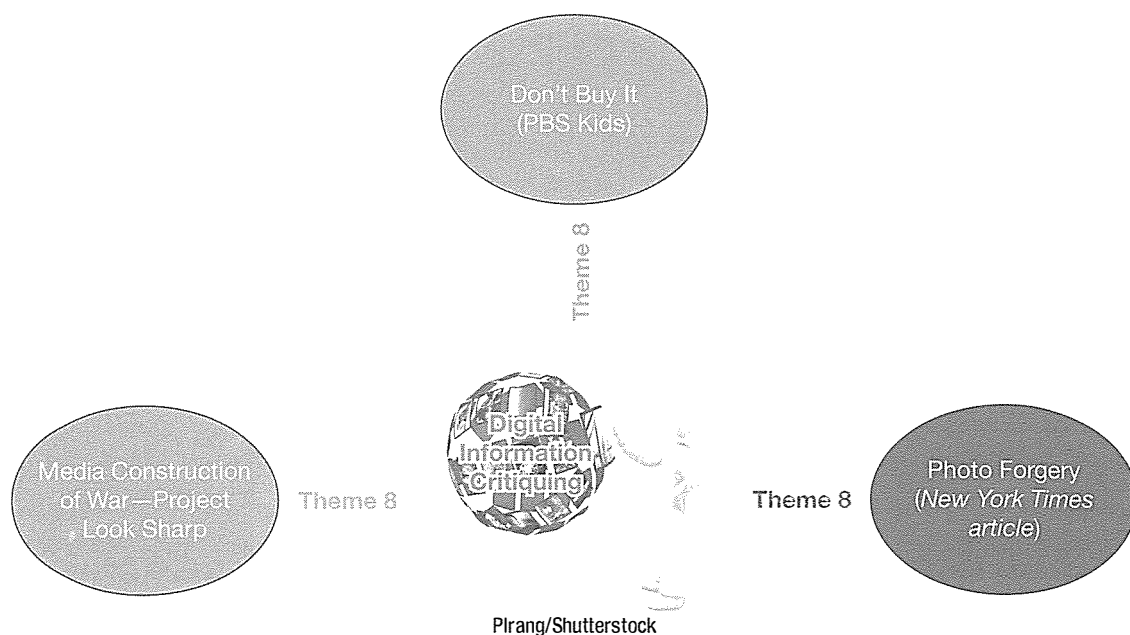
Digital Information Critiques

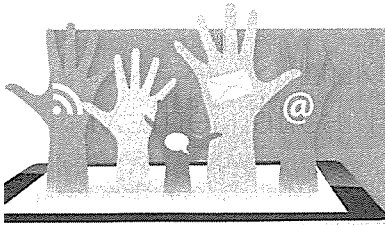
History has many examples of using manipulated images to control people's impressions and opinions. As informed digital citizens, students need to develop skills in evaluating digital information critically. These skills include analyzing images for hidden meaning and telling fact from fiction in articles, reports, and websites. Social studies activities provide a context for simultaneously exploring the social impact of images and developing digital literacy skills. (See Figure 12.2. See also the Hot Topic Debate on this area.)

Electronic Research Strategies

As students study areas such as politics, economics, and current events, information is likely to change quickly and frequently. Accessing Internet sources give students and teachers up-to-date information they could not obtain easily from other sources. Also, access to information summaries and examples of data “pictures” on the Internet help students learn to analyze information in

FIGURE 12.2 Critiquing Digital Information Resources for Social Studies





Hot Topic Debate Should Wikipedia be Forbidden in Students' Social Studies Research?

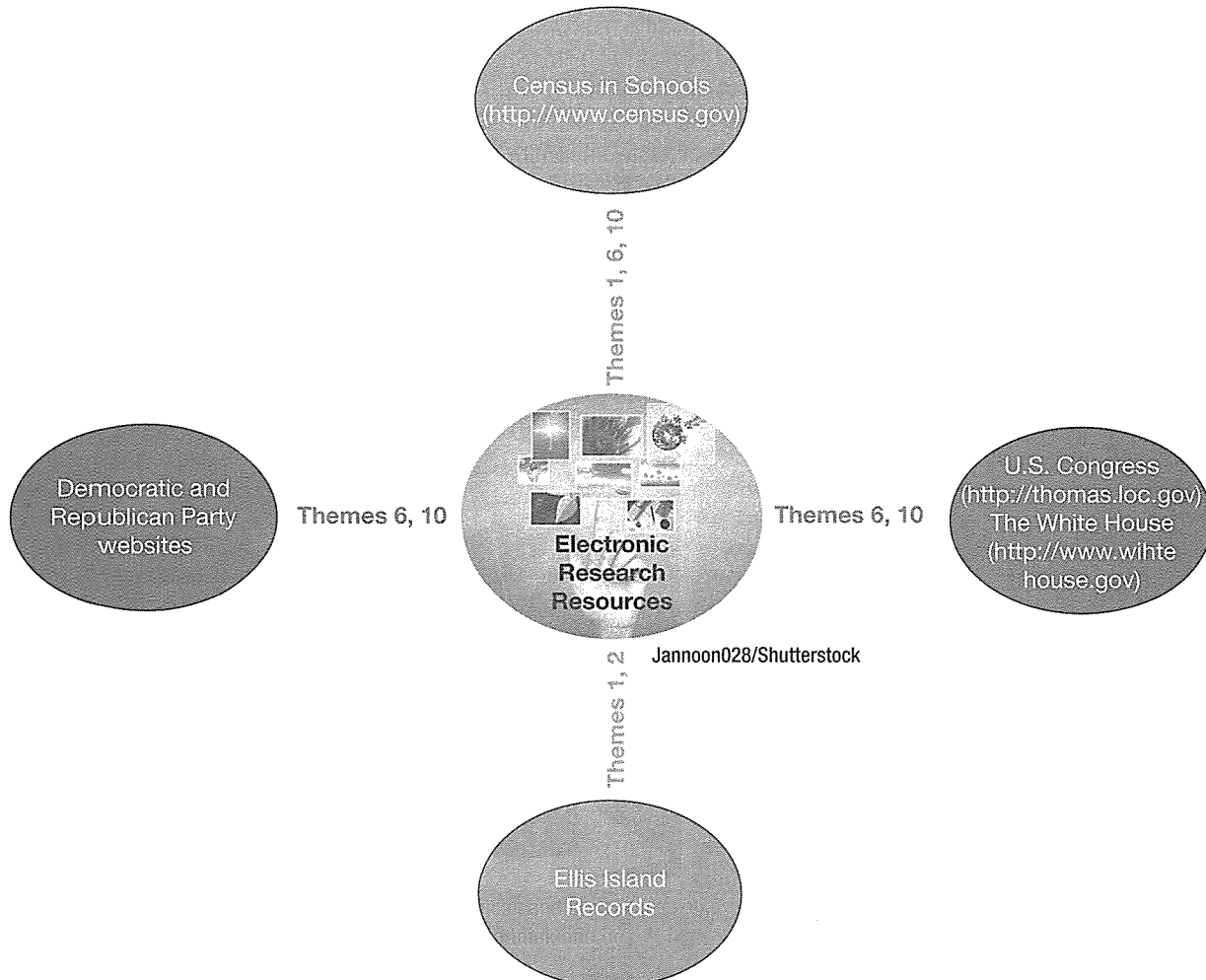
Take a position for or against (based either on your own position or one assigned to you) on the following controversial statement. Discuss it in class or on an online discussion board, blog, or wiki, as assigned by your instructor. When the discussion is complete, write a summary of the main pros and cons that you and your classmates have stated, and put the summary document in your Teacher Portfolio.

In his 2009 article "High School Research and Critical Literacy: Social Studies With and Despite Wikipedia," Harouni found that Wikipedia had become an obstacle to his students learning that "defined my students' experience with research" (p. 473). He noticed

his students' dependence on Wikipedia as a source for their social studies reports, but realized that they neither understood well what they had quoted nor checked it for accuracy. However, he still felt Wikipedia had a role to play as a tool for making students more aware of critical evaluation of sources. Other social studies educators are not so tolerant, viewing Wikipedia as an unreliable source that should be forbidden in student work. Even Wikipedia creator Jimmy Wales said that Wikipedia is not what history students should be citing, because they should be citing history books, rather than any encyclopedia. Do Wikipedia and other social sources like blogs have a role to play in student research? If so, what should that role be? Or should such sources be forbidden and, if so, why?

both graphic and text forms. Since we are relying more and more on Internet sources for reliable, up-to-date information, students must learn where they can look for various kinds of data and facts they need to complete research in school and, later, at work. See Figure 12.3 for a summary of these strategies.

FIGURE 12.3 Electronic Research Resources for Social Studies



Information Visualization Strategies

Students often have problems visualizing abstract concepts and data. The availability of large data sets combined with exponential growth in hardware and software capability creates the potential to improve communication through the use of enhanced visualization techniques (Berson & Berson, 2009). In the past, teachers strove to use various technologies to represent concepts and data graphically, which can help novices understand and apply them. Today, even students can use products such as graphing software, spreadsheets, and numerous online information visualization sites to put data into a concrete form for easier analysis and representation of concepts, allowing concepts to be depicted visually. Information visualization products (see Figure 12.4) allow students to understand time sequences, track change over time, and represent complex data in ways that can be readily understood.

Virtual Field Trips

Virtual field trips are “visits” students make with online sites to see places they could not easily go to in real life or that can help them get more out of trips they are able to take. For example, visiting foreign locations online gives students a richer, more comprehensive perspective on the world around them and makes the world a living part of their classroom. For students who may travel little, the wealth of images and information from virtual field trips helps them see and understand the variety of cultures, sights, and events outside their own communities. Virtual field trips also offer budget-friendly opportunities for schools and students who are not able to afford the expenses of physical field trips, while at the same time reaching an unlimited number of students. See Figure 12.5 for some good field-trip resources for social studies classrooms.

FIGURE 12.4 Information Visualization Resources

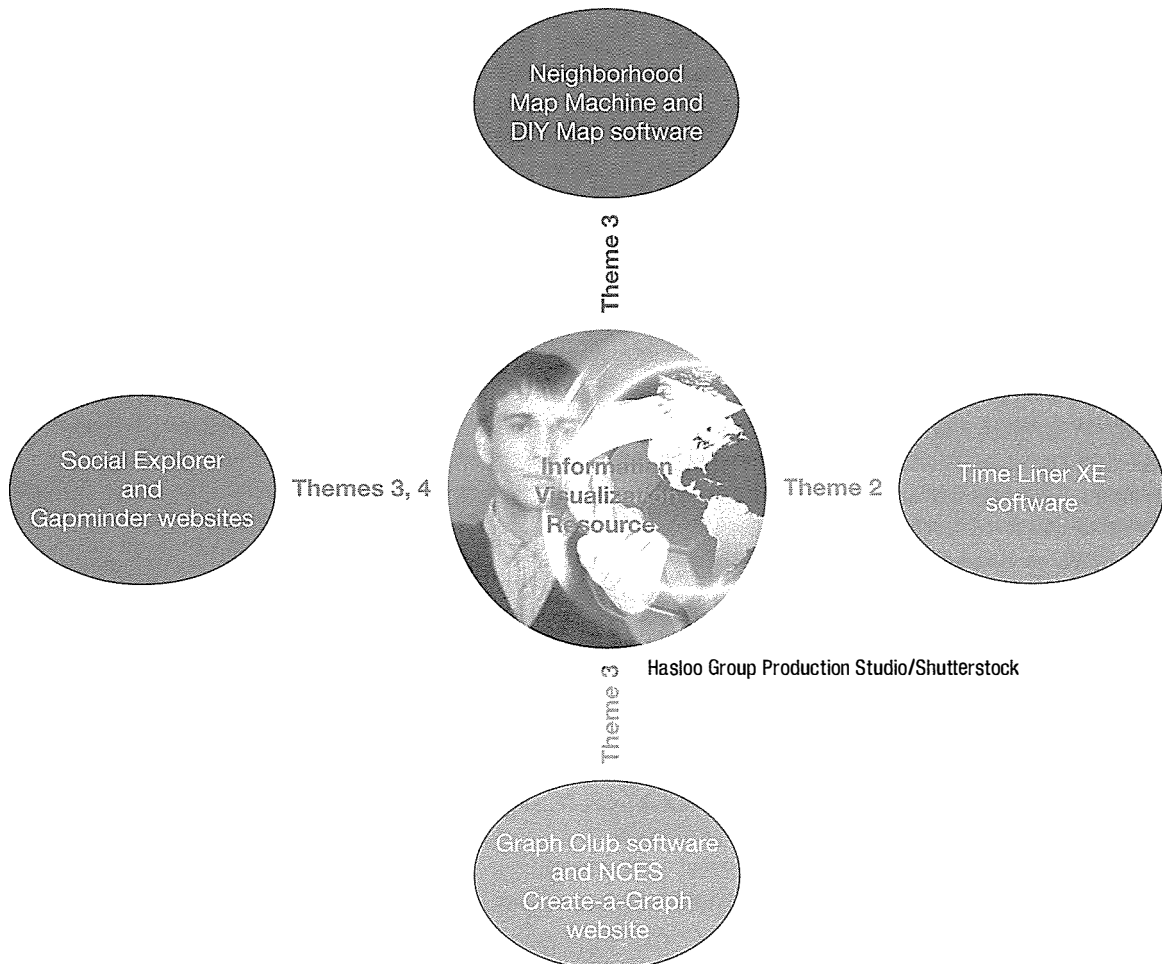
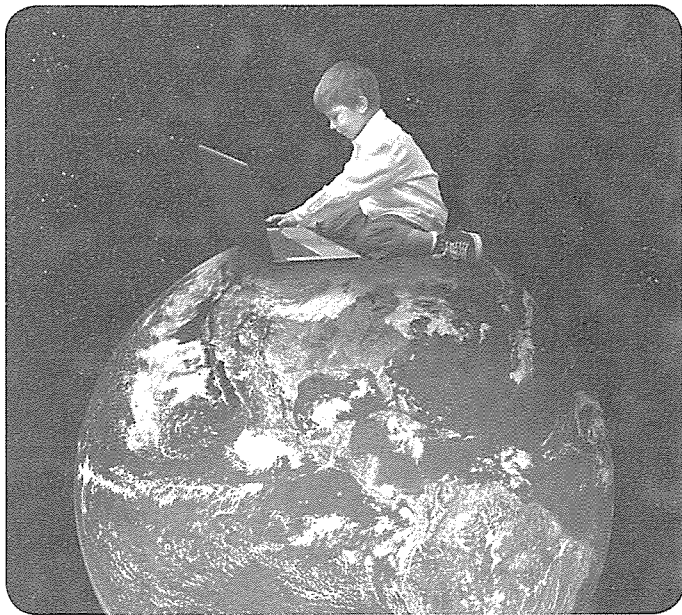
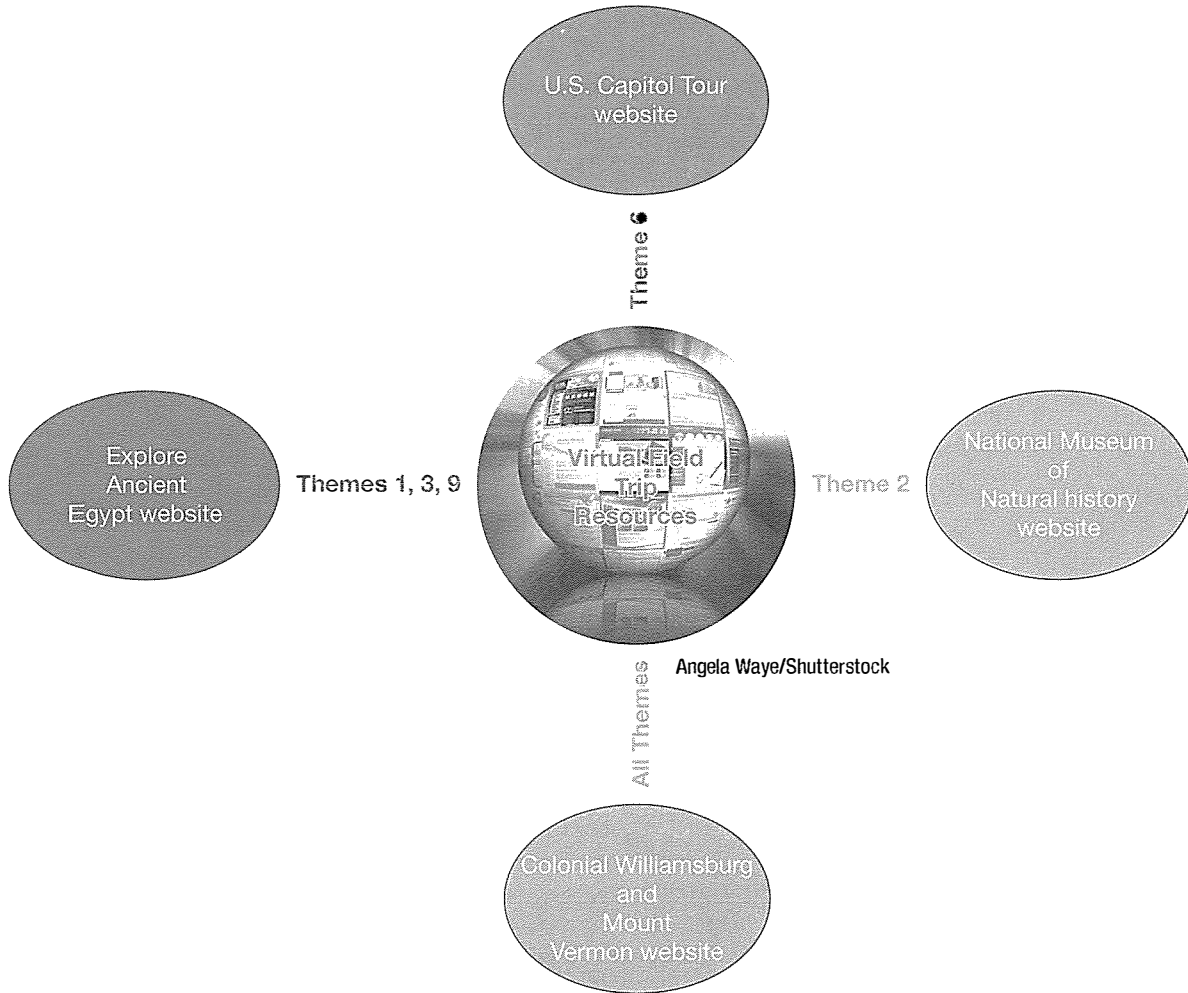


FIGURE 12.5 Virtual Field Trip Resources for Social Studies



▲ Virtual field trips put students in touch with people and with geographical locations they may not otherwise have access to. Olly/Fotolia

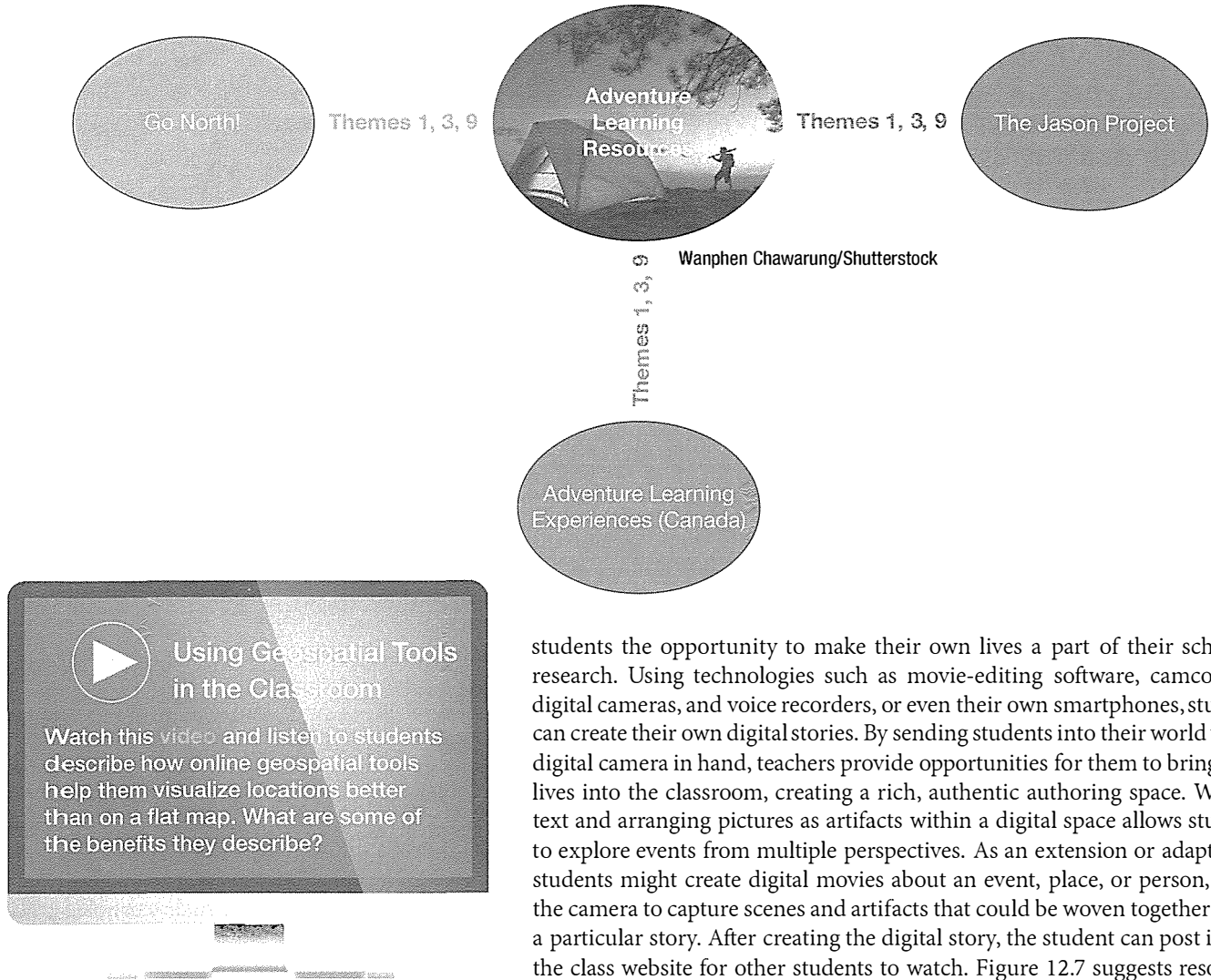
Adventure Learning (AL)

Adventure learning (AL) is an approach that lets students learn through real-world experiences, either by taking actual trips themselves with mentors or by following the explorations of others using distance tools. The first AL programs began in the mid-1990's with organizations such as Adventure Learning Experiences in Toronto, Ontario, Canada. These programs use online sites to recruit and register students and organize expeditions to sites around the world. Veletsianos & Doering (2010) described another kind of AL that allows students to travel along virtually with explorers and educators who take actual trips. The accompanying curriculum, travel experiences and observations of teams, and the online learning environment allow them to learn about the locations, as well as skills in content areas that include science and geography. See Figure 12.6 for sample AL sites.

Digital Storytelling

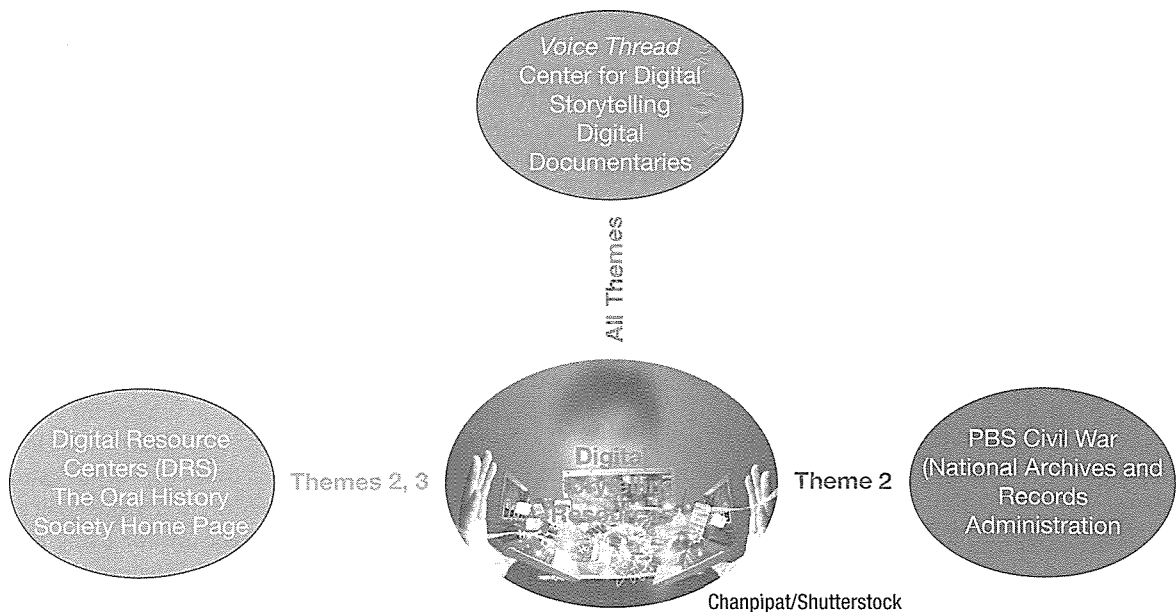
Digital storytelling is the process of using images and audio to tell the stories of lives, events, or eras. This strategy allows students to use a personal narrative to explore community-based history, politics, economics, and geography. These projects offer

FIGURE 12.6 Adventure Learning Resources for Social Studies

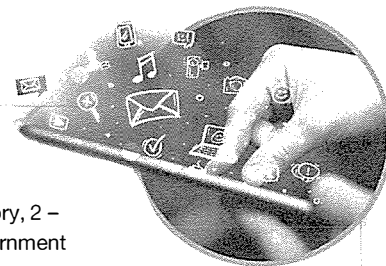


students the opportunity to make their own lives a part of their scholarly research. Using technologies such as movie-editing software, camcorders, digital cameras, and voice recorders, or even their own smartphones, students can create their own digital stories. By sending students into their world with a digital camera in hand, teachers provide opportunities for them to bring their lives into the classroom, creating a rich, authentic authoring space. Writing text and arranging pictures as artifacts within a digital space allows students to explore events from multiple perspectives. As an extension or adaptation, students might create digital movies about an event, place, or person, using the camera to capture scenes and artifacts that could be woven together to tell a particular story. After creating the digital story, the student can post it onto the class website for other students to watch. Figure 12.7 suggests resources

FIGURE 12.7 Digital Storytelling Resources for Social Studies



TECHNOLOGY INTEGRATION



Example 12.1

TITLE: Using QR Codes to Tell Our Digital Histories

CONTENT AREA/TOPIC: History

GRADE LEVELS: 6–8

ISTE STANDARDS*S: Standard 1—Creativity and Innovation; Standard 2—Communication and Collaboration; Standard 3—Research and Information Fluency; Standard 6—Technology Operations and Concepts

CCSS: CCSS.ELA-LITERACY.W.8.6, CCSS.ELA-LITERACY.W.8.2, CCSS.ELA-LITERACY.W.8.3

NCSS THEMES: Thematic Standards: 1 – Culture and Cultural Diversity, 3 – People, Places, and Environments, 5 – Individual Development and Identity; 8 – Science, Technology, and Society;

Disciplinary Standards: 1 – History, 2 – Geography, 3 – Civics and Government

DESCRIPTION: Following a brief introduction to the unit and the use of quick response (QR) codes, students learn about digital storytelling by looking at and discussing sample digital stories. Next they practice the technique of digital storytelling by using digital cameras, scanners, and digital story creation software such as Microsoft's PhotoStory to create brief histories about their own lives, which they share with classmates for review. They create digital histories of local sites and events by locating and analyzing photographs, videos, documents, and other historical artifacts. They place the QR codes on plaques at the locations they discuss so that anyone who visits the sites can read their digital stories by scanning the QR code. Finally, they use a wiki to house their digital stories to be shared with the class and the local community.

SOURCE: Based on an idea from "Taking It to the Street: Using QR Codes to Tell Student-Created (Hi)stories on Location" (2013) by Mark van 't Hooft.

that support digital storytelling, and Technology Integration Example 12.1 shows how to use technology in innovative ways to construct these stories.

Geospatial Analysis Strategies

Geospatial technologies, the use of technology for visualization, analysis, and measurement of features and phenomena, are being written into U.S. social studies standards. The use of geospatial technologies such as Google Earth and ArcGIS allow individuals to view and examine the world through multiple layering of data sets (population density, roads, earthquake activity) within a spatial environment. Although access to and use of such technology was previously limited by steep costs and demanding hardware, that is no longer the case, and recently geospatial technologies have become increasingly popular with the general public. Google Earth is free and has become the foundation of numerous geography learning activities. It is now available in 13 languages and has more than a third of the world's land surface and half of the world's population in high-resolution imagery. Google is not the only company providing new geospatial technologies—the Environmental Systems Research Institute (ESRI) has long dominated the GIS world with technologies such as ArcGIS and ArcView.

Another tool that allows students to look at social studies from many different perspectives is a **Global Positioning System (GPS)**. A GPS provides users with a location and time anywhere on Earth and is commonplace in today's automobiles and smart phones. However, GPS is also used for numerous other activities such as geocaching. **Geocaching** is an online activity in which students look at a database of caches or items listed at a geocaching website, decide on one to hunt for, use GPSs to help them locate it, and share their experiences with others involved in the hunt. Gillin and Gillin (2010) note that geocaching's appeal is that it gets people out in nature and examining physical locations firsthand. In education, students look at a database of caches at numerous geocaching websites and decide on a cache to hunt for using a GPS to help them locate it (see Technology Integration Strategy 12.2). Figure 12.8 shows good sources of other GIS and GPS lessons.



▲ Geospatial technologies like Google Earth have become the foundation of numerous geography learning activities. Annie Pickert Fuller/Pearson Education

TECHNOLOGY INTEGRATION



Example 12.2

TITLE: Are We There yet?

CONTENT AREA/TOPIC: Geography

GRADE LEVELS: 6–12

ISTE STANDARDS•S: Standard 3—Research and Information Fluency; Standard 4—Critical Thinking, Problem Solving, and Decision Making; Standard 6—Technology Operations and Concepts

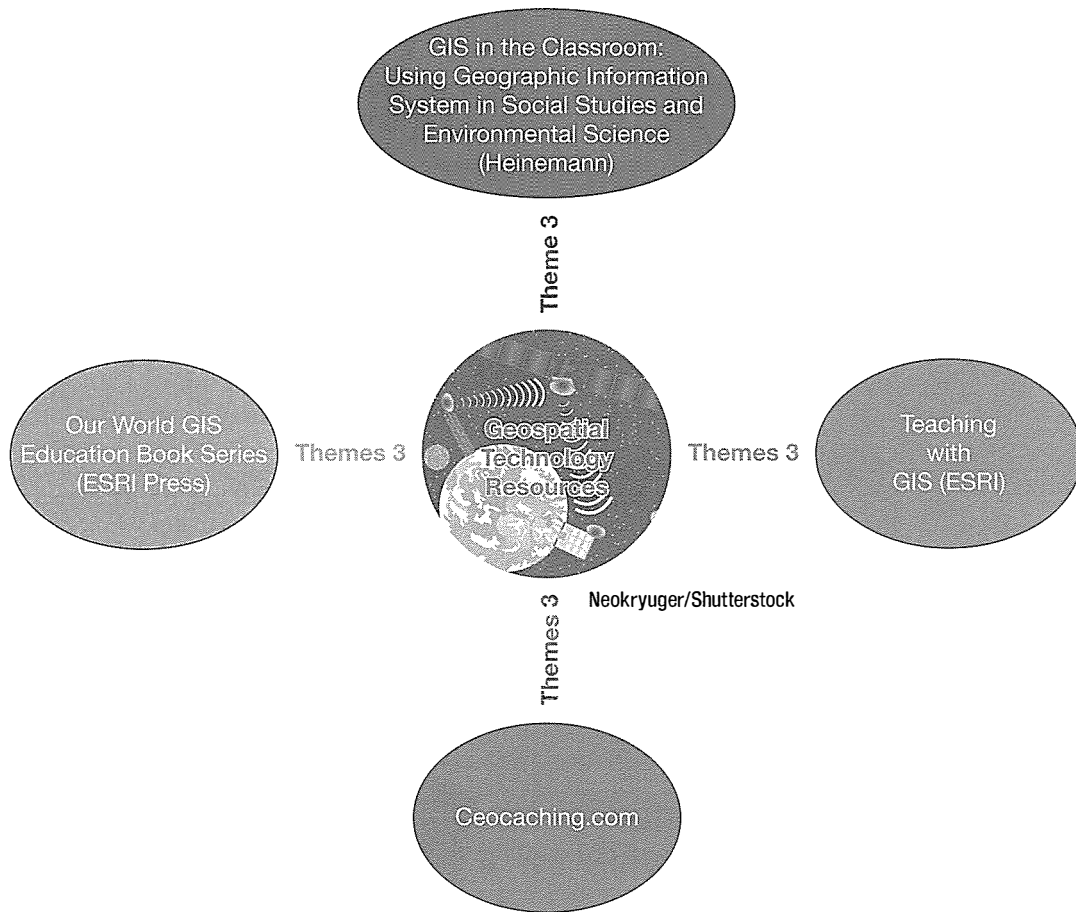
NCSS THEMES: Thematic Standards: 8 – Science, Technology, and Society; Disciplinary Standard: 2 – Geography

DESCRIPTION: Students go in small groups on a geocaching adventure that the teacher sets up ahead of time in the local

area by hiding caches of three plastic containers or other waterproof boxes. The first contains a copy of a handout on how the GPS works. The second cache has navigational tools such as maps and compass. The third has a toy or model representing the treasure students are seeking. The teacher numbers the boxes and hides each on the school grounds. Finally, the teacher gives students one GPS per group, a handout with “X Marks the Spot,” and the GPS coordinates of the three caches; students write the coordinates on their handouts. As they locate the boxes, they answer clues to the “treasure” on their handout.

SOURCE: Based on an idea from the lesson “Are We There Yet?” by Catherine Hutchings at The Learning Network website: <http://learning.blogs.nytimes.com>.

FIGURE 12.8 Geospatial Technology Resources for Social Studies



TECHNOLOGY LEARNING CHECK

Complete **TLC 12.2** to review what you have learned from this section about technology integration strategies for social studies.

TEACHING SOCIAL STUDIES TEACHERS TO INTEGRATE TECHNOLOGY

This section gives recommendations for how teachers can prepare to integrate technology effectively into instruction for the various social studies topics. As discussed earlier in this chapter, it is difficult for a teacher to be equally well-prepared to teach all content topics that fall under the general heading of “the social studies.” They will likely become proficient in only one or two. Therefore, teachers must tailor skills and strategies described here to their own area(s) of expertise. For example, a history teacher may not need to know and apply GIS or mapping software in the same way as one who teaches geography, but every social studies teacher should be able to use information visualization tools and strategies to enhance instruction.

Rubric to Measure Teacher Growth in Social Studies Technology Integration

Begin by reviewing the rubric in Figure 12.9 to measure teachers’ progress in effectively integrating technology in social studies instruction. Part I of the rubric addresses knowledge of issues and challenges, and Part II addresses social studies technology integration strategies.

Learning the Issues and Applications

The first step in technology integration is to become acquainted with the issues and challenges discussed in this chapter and how they shape teachers’ uses and applications of technologies. Then teachers can begin developing capabilities to address instructional standards and curriculum goals. The following is a suggested sequence of learning activities:

- **Issues and challenges in social studies instruction.** After reviewing the information in this chapter, go to the website of the social studies professional organization—the National Council for the Social Studies (NCSS)—and review both the standards and the C3 framework. See the professional development resources the site offers, and decide on which can help you gain insight into the issues and challenges outlined in this chapter. Discuss and reflect on the two questions under the Collaborate, Discuss, Reflect feature at the end of the chapter. Complete Part I of the rubric in Figure 12.9 before you begin this sequence and again at various points in your progress.
- **Social studies technology integration strategies.** After reviewing the information in this chapter, review examples of the technologies suggested in the Open Source Options feature and the websites and projects described under each section, and do the lesson evaluation and lesson development activities outlined in the Technology Integration Workshop at the end of this chapter. Reflect on how you will plan for implementing these strategies in your own classroom using the TIP model. Complete Part I of the rubric in Figure 12.9 before you begin this sequence and again at various points in your progress.



TECHNOLOGY LEARNING CHECK

Complete **TLC 12.3** to review what you have learned from this section about how social studies teachers can develop their knowledge and skills in technology integration.

FIGURE 12.9 Rubric to Measure Teacher Growth in Social Studies Technology Integration

Part I: Teacher Knowledge of Social Studies Issues and Challenges			
	Basic knowledge (1–2 points)	Intermediate knowledge (3–4 points)	Advanced knowledge (4–5 points)
Meeting standards across the social studies	I can articulate the nature of the issue.	I can both articulate the nature of the issue and some of the possible ways to address it.	I can articulate my own plan for addressing the issue in my own teaching.
Challenges in teaching social studies	I can articulate the nature of the issue.	I can both articulate the nature of the issue and some of the possible ways to address it.	I can articulate my own plan for addressing the issue in my own teaching.
The history wars	I can articulate the nature of the issue.	I can both articulate the nature of the issue and some of the possible ways to address it.	I can articulate my own plan for addressing the issue in my own teaching.
Perils of the information explosion	I can articulate the nature of the issue.	I can both articulate the nature of the issue and some of the possible ways to address it.	I can articulate my own plan for addressing the issue in my own teaching.
Part II: Teachers' Technology Integration Strategies for Social Studies			
	Basic knowledge (1–2 points)	Intermediate knowledge (3–4 points)	Advanced knowledge (4–5 points)
Using simulations and problem-solving environments	I can describe the strategy and identify technologies to carry it out.	I have designed at least 1–2 activities based on this strategy to enhance my teaching and my students' learning.	I have designed plans for how I will integrate this strategy throughout my curriculum to enhance my teaching and my students' learning.
Digital information critiques	I can describe the strategy and identify technologies to carry it out.	I have designed at least 1–2 activities based on this strategy to enhance my teaching and my students' learning.	I have designed plans for how I will integrate this strategy throughout my curriculum to enhance my teaching and my students' learning.
Electronic research strategies	I can describe the strategy and identify technologies to carry it out.	I have designed at least 1–2 activities based on this strategy to enhance my teaching and my students' learning.	I have designed plans for how I will integrate this strategy throughout my curriculum to enhance my teaching and my students' learning.
Information visualization strategies	I can describe the strategy and identify technologies to carry it out.	I have designed at least 1–2 activities based on this strategy to enhance my teaching and my students' learning.	I have designed plans for how I will integrate this strategy throughout my curriculum to enhance my teaching and my students' learning.
Virtual field trips	I can describe the strategy and identify technologies to carry it out.	I have designed at least 1–2 activities based on this strategy to enhance my teaching and my students' learning.	I have designed plans for how I will integrate this strategy throughout my curriculum to enhance my teaching and my students' learning.
Adventure learning	I can describe the strategy and identify technologies to carry it out.	I have designed at least 1–2 activities based on this strategy to enhance my teaching and my students' learning.	I have designed plans for how I will integrate this strategy throughout my curriculum to enhance my teaching and my students' learning.
Digital storytelling	I can describe the strategy and identify technologies to carry it out.	I have designed at least 1–2 activities based on this strategy to enhance my teaching and my students' learning.	I have designed plans for how I will integrate this strategy throughout my curriculum to enhance my teaching and my students' learning.
Geospatial analysis strategies	I can describe the strategy and identify technologies to carry it out.	I have designed at least 1–2 activities based on this strategy to enhance my teaching and my students' learning.	I have designed plans for how I will integrate this strategy throughout my curriculum to enhance my teaching and my students' learning.
Total points	_____ of 60 possible points		

COLLABORATE, DISCUSS, REFLECT



Monkey Business/Fotolia

The following questions may be used either for in-class, small-group discussions or may be used to initiate discussions in blogs or online discussion boards:

1. In 2013, the NCSS Board of Directors drafted a Technology Position Statement and Guidelines that articulated the role of emerging technologies in shaping social studies content and curriculum. Saying that the explosion of online data and blended settings for learning “are reshaping how children and youth are able to act as citizens and consumers” (NCSS, 2013), one of the guidelines encourages teachers to draw parallels between the “growth of Wikipedia and the democratization of knowledge” with the advent of movable type and the mechanical printing press in the 1550s. Do you feel this is an accurate comparison? What information could you cite to support or question this connection?
2. Another recommendation of the NCSS Technology Position Statement is to “establish guidelines for the promotion of media literacy and related research skills in social studies.” What specific guidelines should teachers encourage or require students to use when they use online sources to research assignments in social studies topics?

Chapter

12

Summary

The following is a summary of the main points covered in this chapter.

1. **Issues and Challenges in Social Studies.** Issues include challenges of meeting standards across social studies areas, challenges when teaching social studies, the “history wars” and other debates on the content and focus of social studies, and the perils of the information explosion.
2. **Technology Integration Strategies for Social Studies Instruction.** Technology integration strategies include:
 - Using simulations and problem-solving environments
 - Digital information critiques
 - Electronic research strategies
 - Information visualization strategies
 - Virtual field trips
 - Adventure learning
 - Digital storytelling
 - Geospatial analysis strategies
3. **Teaching Social Studies Teachers to Integrate Technology.** Teachers can begin by consulting the rubric provided in this chapter to measure their own growth in social studies technology integration. After that, they may review issues and challenges in social studies instruction and use chapter resources to learn technology integration strategies they can use to address the issues and challenges.

TECHNOLOGY INTEGRATION WORKSHOP

1. APPLY WHAT YOU LEARNED

To apply the concepts and skills you've read about throughout this chapter, go to the [Chapter 12 Technology Application Activity](#).

2. TECHNOLOGY INTEGRATION LESSON PLANNING: PART 1—EVALUATING AND CREATING LESSON PLANS

Complete the following exercise using the sample lesson plans found on any lesson planning site that you find on the Internet.

- a. Locate lesson ideas— Identify three lesson plans that focus on any of the tools or strategies you learned about in this chapter. For example:
 - Digital storytelling
 - Geocaching
 - Geospatial analysis
 - Virtual field trips
- b. Evaluate the lessons—Use the [Technology Lesson Plan Evaluation Checklist](#) to evaluate each of the lessons you found.
- c. Create your own lesson—After you have reviewed and evaluated some sample lessons, create one of your own using a lesson plan format of your choice (or one your instructor gives you). Be sure the lesson focuses on one of the technologies or strategies discussed in this chapter.

3. TECHNOLOGY INTEGRATION LESSON PLANNING: PART 2—IMPLEMENTING THE TIP MODEL

Review how to implement the TIP model in your classroom by doing the following activities with the lesson you created in the Technology Integration Lesson Planning exercise above.

- a. Describe the Phase 1—Planning activities you would do to use this lesson in your classroom:
 - What is the relative advantage of using the technology(ies) in this lesson?
 - Do you have resources and skills you need to carry it out?
- b. Describe the Phase 2—Implementation activities you would do to use this lesson in your classroom:
 - What are the objectives of the lesson plan?
 - How will you assess your students' accomplishment of the objectives?
 - What integration strategies are used in this lesson plan?
 - How would you prepare the learning environment?
- c. Describe the Phase 3—Evaluation/Revision activities you would do to use this lesson in your classroom: What strategies and/or instruments would you use to evaluate the success of this lesson in your classroom in order to determine revision needs?
- d. Add lesson descriptors—Create descriptors for your new lesson (e.g., grade level, content and topic areas, technologies used, ISTE standards, 21st Century Learning standards).
- e. Save your new lesson—Save your lesson plan with all its descriptors and TIP model notes.

4. FOR YOUR TEACHING PORTFOLIO

Add the following to your Teaching Portfolio:

- Reflections on Hot Topic Debate
- Summary notes from the Collaborate, Discuss, Reflect activity.
- Lesson plan evaluations, lesson plans, and products you created above.
- Your *Apply What You Learned* Product from Activity 1.